

ABSTRACT OF THE DISCLOSURE

A compact multi-chip module having a high performance is provided. A plurality of first semiconductor chips for exchanging signals are surface-mounted on a surface of a mounting board. A second semiconductor chip with most of bonding pads thereof arranged along one side thereof is mounted back-to-back with at least one of the first semiconductor chips on the mounting board. The bonding pads of the second semiconductor chip and corresponding electrodes formed on the mounting board are connected by wire bonding. The first and second semiconductor chips and bonding wires on the mounting board are encapsulated with a sealing material.